

October 9, 2002

RE: GE Industrial Systems 003-16027-00284  
TO: Interested Parties / Applicant  
  
FROM: Paul Dubenetzky  
Chief, Permits Branch  
Office of Air Quality

## **Notice of Decision: Approval - Effective Immediately**

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this approval is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within (18) eighteen days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) the date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for consideration at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosure

October 9, 2002

Mr. Brian Walencik,  
GE Industrial Systems  
Post Office Box 1701  
Fort Wayne, IN 46801-1701

Re: 003-16027-00284  
First Minor Revision to  
FESOP 003-6901-00284

Dear Mr. Brian Walencik:

GE Industrial Systems submitted a FESOP on October 15, 1996 for a stationary electrical motors and a speciality transformers manufacturing plant. A letter requesting changes to this permit was received on May 17, 2002. Pursuant to the provisions of 326 IAC 2-8-11.1 a minor permit revision to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of a change in the impregnation process (emission unit 108) with two processes (emission unit 108A and 108B) used to treat transformer coils and cores.

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions  
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit  
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the minor permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact James Farrell, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call at (800) 451-6027, press 0 and ask for James Farrell or extension 3-8396, or dial (317) 233-8396.

Sincerely,  
Original signed by Paul Dubenetzky

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

Attachments

JF

cc: File - Allen County  
U.S. EPA, Region V  
Allen County Health Department  
Air Compliance Section Inspector - Jennifer Dorn  
Compliance Data Section - Karen Nowak  
Administrative and Development  
Technical Support and Modeling - Michele Boner



Frank O'Bannon  
Governor

Lori F. Kaplan  
Commissioner

100 North Senate Avenue  
P. O. Box 6015  
Indianapolis, Indiana 46206-6015  
(317) 232-8603  
(800) 451-6027  
[www.state.in.us/idem](http://www.state.in.us/idem)

**MINOR PERMIT REVISION  
FEDERALLY ENFORCEABLE STATE  
OPERATING PERMIT (FESOP)  
OFFICE OF AIR QUALITY**

**GE Industrial Systems  
1635 Broadway  
Fort Wayne, Indiana 46801-1701**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F003-16027-00284	
Original signed by Paul Dubenetzky Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: October 9, 2002

<b>SECTION A</b>	<b>SOURCE SUMMARY</b> .....	<b>4</b>
A.1	General Information [326 IAC 2-8-3(b)]	
A.2	Source Definition [326 IAC 2-8-1] [326 IAC 2-7-1(22)]	
A.3	Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]	
A.4	Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]	
A.5	FESOP Applicability [326 IAC 2-8-2]	
<b>D.1</b>	<b>FACILITY OPERATION CONDITIONS - Example of 326 IAC 8-2-9, synthetic minor limit</b> .	<b>5</b>
	 <b>Emission Limitations and Standards [326 IAC 2-8-4(1)]</b>	
D.1.1	Volatile Organic Compounds (VOC) Limitations	
D.1.2	Preventive Maintenance Plan [326 IAC 2-7-5(13)]	
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D.1.3	Volatile Organic Compounds (VOC)	
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D.1.4	Record Keeping Requirements	
D.1.5	Reporting Requirements	
	<b>Quarterly Report Form</b> .....	<b>7</b>

## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.4 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-8-3(b)]

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The Permittee owns and operates a stationary electrical motors and a speciality transformers manufacturing plant.

Authorized individual:	Eric Hickman - Plant Manager
Source Address:	1635 Broadway Street, Fort Wayne, Indiana, 46802
Mailing Address:	Post Office Box 1701, Fort Wayne, Indiana, 46802
SIC Code:	3612, 3621
Source Location Status:	Allen
County Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD

### A.2 Source Definition [326 IAC 2-8-1] [326 IAC 2-7-1(22)]

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This stationary electric motors and specialty transformers manufacturing company consists of two (2) plants:

- (a) GE Industrial Systems - Broadway St. (Source ID 003-00006) is located at 1635 Broadway, Fort Wayne, Indiana; and
- (b) GE Industrial Systems - College St. (Source ID 003-00047) is located at 1701 College Street, Fort Wayne, Indiana.

Since the two (2) plants are located in contiguous properties, are owned by one (1) company, belong to the same industrial grouping, they will be considered one (1) source. The combined source will have the Source ID 003-00284.

### A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) 1,500 gallon dip tank with a drip/recovery tank processed to a 1.5 mmBTU/hr natural gas fired cure oven with a cooling stage, identified as (unit 108A), exhausting to stack 246 and 247.
- (b) One (1) automated coating application with an infrared (IR) cure oven (unit 108B), exhausting to stack 202 and 205.

A.4 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This modification to the stationary source does not have any insignificant activities, as defined in 326 IAC 2-7-1(21).

A.5 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]

- (a) One (1) 1,500 gallon dip tank with a drip/recovery tank processed to a 1.5 mmBTU/hr natural gas fired cure oven with a cooling stage, identified as (unit 108A), exhausting to stack 246 and 247.
- (b) One (1) automated coating application with an infrared (IR) cure oven (unit 108B), exhausting to stack 202 and 205.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.1.1 Volatile Organic Compounds (VOC) Limitations [326 IAC 8-2-9] [326 IAC 2-8-11.1]

- (a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), no owner or operator of a facility engaged in the surface coating of miscellaneous metal parts or products may cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of 3.0 pounds of VOC per gallon of coating excluding water, delivered to both unit 108A and 108B.
- (b) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), solvent sprayed from the application equipment during clean up or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.
- (c) Pursuant to 326 IAC 2-8-11.1 (Permit Revisions), this facility shall use less than 25 tons of VOC, including coatings, dilution solvents, and cleaning solvents, per 12 consecutive month period. This usage limit is required to limit the potential to emit of VOC to less than 25 tons per twelve (12) consecutive month period.

#### D.1.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

### Compliance Determination Requirements

#### D.1.3 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Conditions D1.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.



## **Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

### **D.1.4 Record Keeping Requirements**

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- (a) To document compliance with Conditions D.1.1, the Permittee shall maintain records in accordance with (1) through (8) below. Records maintained for (1) through (8) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.1.
  - (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
  - (2) A log of the dates of use;
  - (3) The cleanup solvent usage for each month;
  - (4) The total VOC usage for each month; and
  - (5) The weight of VOCs emitted for each compliance period.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

### **D.1.5 Reporting Requirements**

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A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: GE Industrial Systems  
Source Address: 1635 Broadway Street, Fort Wayne, IN 46802  
Mailing Address: Post Office Box1701, Fort Wayne, IN 46802  
FESOP No.: F003-16027-00284  
Facility: GE industrial Systems, Broadway St.  
Parameter: VOC  
Limit: Less Than 25 Tons per Year.

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.



## **Indiana Department of Environmental Management Office of Air Quality**

### **Technical Support Document (TSD) for a Permit Modification to a Federally Enforceable State Operating Permit (FESOP)**

#### **Source Background and Description**

<b>Source Name:</b>	<b>GE Industrial Systems</b>
<b>Source Location:</b>	<b>1635 Broadway, Fort Wayne, IN 46802</b>
<b>County:</b>	<b>Allen</b>
<b>SIC Code:</b>	<b>3612,3621</b>
<b>Operation Permit No.:</b>	<b>F003-6901-00284</b>
<b>Operation Permit Issuance Date:</b>	<b>Permit has not been issued</b>
<b>Permit Revision No.:</b>	<b>MSOP 003-16027-00284</b>
<b>Permit Reviewer:</b>	<b>James Farrell</b>

The Office of Air Quality (OAQ) has reviewed a FESOP revision request from GE Industrial Systems relating to the replacement of the impregnation process (emission unit 108) with two processes (emission unit 108A and 108B) used to treat transformer coils and cores.

#### **Emission Units and Pollution Control Equipment**

The modification consists of the following emission units and pollution control devices:

- (a) One (1) 1,500 gallon dip tank with a drip/recovery tank processed to a 1.5 mmBTU/hr natural gas fired cure oven with a cooling stage, identified as (unit 108A), exhausting to stack 246 and 247.
- (b) One (1) automated coating application with an infrared (IR) cure oven (unit 108B), exhausting to stack 202 and 205.

#### **Source Definition**

This stationary electric motors and specialty transformers manufacturing company consists of two (2) plants:

- (a) GE Industrial Systems - Broadway St. is located at 1635 Broadway, Fort Wayne, Indiana; and
- (b) GE Industrial Systems - College St. is located at 1710 College Street, Fort Wayne, Indiana.

Since the two (2) plants are located in contiguous properties, are owned by one (1) company, belong to the same industrial grouping, they will be considered one (1) source. The combined source will have the source ID 003-00284.

### Enforcement Issue

There are no enforcement actions pending.

### Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
202	108B	34	0.83 x 0.83	2,100	75
205	108B	34	1.2 x 0.92	2,800	265
246	108A	32	0.83	1,400	370
247	108A	30	2.5	10,100	85

### Recommendation

The staff recommends to the Commissioner that the FESOP be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on May 17, 2002. Additional information was received on July 24, 2002.

### Emission Calculations

See Appendix A of this document for detailed emissions calculations. ( 3 pages)

### Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	0.012
PM-10	0.050
SO <sub>2</sub>	0.004
VOC	35.69
CO	0.552
NO <sub>x</sub>	0.657
HAP's	Potential To Emit (tons/year)
Glycol Ether	0.717
Benzoquinone	0.038
Methyl Ethyl Ketone	1.227

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

### Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Federally Enforceable State Operating Permit.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
108A and 108B	0.012	0.050	0.004	less than 25*	0.552	0.657	1.98

\* VOC emissions are being limited to less than 25 TPY for both processes combined.

### Justification for Modification

The FESOP Operating Permit is being modified through a FESOP Minor Permit Modification. This modification is being performed pursuant to 326 IAC 2-8-11.1(d)(5)(A). The potential to emit volatile organic compounds (VOCs) are limited to less than 25 tons per year by limiting total annual VOC usage.

### County Attainment Status

The source is located in Allen County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Allen County has been designated as attainment or unclassifiable for ozone.

### **Federal Rule Applicability**

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

### **State Rule Applicability**

#### **326 IAC 2-2 (Prevention of Significant Deterioration)**

This source is not subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) because the potential VOC emissions after controls are less than two hundred fifty (250) tons per year and it is not one of the 28 listed source categories in this rule.

#### **326 IAC 2-6 (Emission Reporting)**

This source is located in Allen County and the potential to emit VOC, PM<sub>10</sub>, SO<sub>2</sub>, CO and NO<sub>x</sub> is less than one-hundred (100) tons per year, therefore, 326 IAC 2-6 does not apply.

#### **326 IAC 2-4.1 (Major Source of Hazardous Air Pollutants)**

This modification is not subject to the new source MACT requirements because no single hazardous air pollutant (HAP) is emitted at a rate of 10 tons per year and combined HAPS are not emitted at a rate of 25 tons per year.

#### **326 IAC 5-1 (Opacity Limitations)**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### **326 IAC 8-2-9 (Miscellaneous Metal Coating)**

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), any industrial category which coats metal parts or products under the Standard Industrial Code #36 shall be directed by this rule. The volatile organic compound (VOC) content of coating delivered to the applicator at the coil dip and core encapsulated spray process shall be limited to 3.0 pounds of VOCs per gallon of coating less water, for both processes.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

The above processes comply with this rule because the VOC content of the coatings used in the processes are less than 3.0 pounds of VOC per gallon of coating less water.

#### 326 IAC 8-1-6 (New Facilities General Reduction Requirements)

The dip tank with a drip/recovery tank (Unit 108A) and automated coating application (Unit 108B) processes are not subject to this rule because VOC emissions are limited to less than 25 tons per year and because the processes are subject to 326 IAC 8-2-9.

### **Compliance Requirements**

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

### **Air Toxic Emissions**

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the 1990 Clean Air Act. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Quality (OAQ) FESOP Application Form GSD-08.

The proposed modification will emit levels of air toxics at levels less than those which constitute a major source according to Section 112 of the 1990 Amendments to Clean Air Act.

### **Conclusion**

The operation of this one (1) 1,500 gallon dip tank with a drip/recovery tank processed to a cure oven with a cooling stage (unit 108A), and, one (1) automated coating application with a cure oven (unit 108B), shall be subject to the conditions of the attached FESOP minor permit modification No.: F003-16027-00284.



**Appendix A: Emissions Calculations**  
**VOC and Particulate**  
**From Surface Coating Operations**

**Company Name:** GE Industrial Systems  
**Address City IN Zip:** 1635 Broadway St. Fort Wayne, IN 46802  
**CP:** 16027  
**Pit ID:** 003\_00284  
**Reviewer:** James Farrell  
**Date:** May 25, 2002

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
108A701V-VTC	9.1	23.00%	0.0%	23.0%	0.0%	77.00%	2.02400	1.200	2.09	2.09	5.08	122.00	27.36	0.00	2.72	100%
108B 70VT	9.1	13.20%	0.0%	13.2%	0.0%	86.80%	0.01200	115.000	1.20	1.20	1.66	39.78	8.33	0.00	1.38	100%
	0.0	0.00%	0.0%	0.0%	0.0%	0.00%	0.00000	0.000	0.00	0.00	0.00	0.00	0.00	0.00	ERR	0%
	0.0	0.00%	0.0%	0.0%	0.0%	0.00%	0.00000	0.000	0.00	0.00	0.00	0.00	0.00	0.00	ERR	0%
	0.0	0.00%	0.0%	0.0%	0.0%	0.00%	0.00000	0.000	0.00	0.00	0.00	0.00	0.00	0.00	ERR	0%
	0.0	0.00%	0.0%	0.0%	0.0%	0.00%	0.00000	0.000	0.00	0.00	0.00	0.00	0.00	0.00	ERR	0%
	0.0	0.00%	0.0%	0.0%	0.0%	0.00%	0.00000	0.000	0.00	0.00	0.00	0.00	0.00	0.00	ERR	0%
	0.0	0.00%	0.0%	0.0%	0.0%	0.00%	0.00000	0.000	0.00	0.00	0.00	0.00	0.00	0.00	ERR	0%
	0.0	0.00%	0.0%	0.0%	0.0%	0.00%	0.00000	0.000	0.00	0.00	0.00	0.00	0.00	0.00	ERR	0%
	0.0	0.00%	0.0%	0.0%	0.0%	0.00%	0.00000	0.000	0.00	0.00	0.00	0.00	0.00	0.00	ERR	0%
	0.0	0.00%	0.0%	0.0%	0.0%	0.00%	0.00000	0.000	0.00	0.00	0.00	0.00	0.00	0.00	ERR	0%
	0.0	0.00%	0.0%	0.0%	0.0%	0.00%	0.00000	0.000	0.00	0.00	0.00	0.00	0.00	0.00	ERR	0%

**State Potential Emissions**      **Add worst case coating to all solvents**      **6.74**      **161.79**      **35.68**      **0.00**

**METHODOLOGY**

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)  
Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % Organics)  
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)  
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day)  
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)  
Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \*(8760 hrs/yr) \*(1 ton/2000 lbs)  
Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)  
Total = Worst Coating + Sum of all solvents used

**Appendix A: Emissions Calculations****Natural Gas Combustion Only****MM BTU/HR <100****Small Industrial Boiler****Company Name: GE Industrial Systems****Address City IN Zip: 1635 Broadway St. Fort Wayne, IN 46802****CP: 16027****Plt ID: 003\_00284****Reviewer: James Farrell****Date: May 25, 2002**Heat Input Capacity  
MMBtu/hrPotential Throughput  
MMCF/yr

1.5

13.1

Pollutant						
Emission Factor in lb/MMCF	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.012	0.050	0.004	0.657	0.036	0.552

\*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.

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updated 4/99

**Appendix A: Emissions Calculations****Natural Gas Combustion Only****MM BTU/HR <100****Small Industrial Boiler****HAPs Emissions****Company Name: GE Industrial Systems****Address City IN Zip: 1635 Broadway St. Fort Wayne, IN 46802****CP: 16027****Plt ID: 003\_00284****Reviewer: James Farrell****Date: May 25, 2002****HAPs - Organics**

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.380E-05	7.884E-06	4.928E-04	1.183E-02	2.234E-05

**HAPs - Metals**

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	3.285E-06	7.227E-06	9.198E-06	2.497E-06	1.380E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.